

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Proposed

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: SGL Carbon, LLC
Mailing Address: 2320 Myron Cory Drive, Hickman, KY 42050

Source Name: SGL Carbon, LLC
Mailing Address: 2320 Myron Cory Drive, Hickman, KY 42050

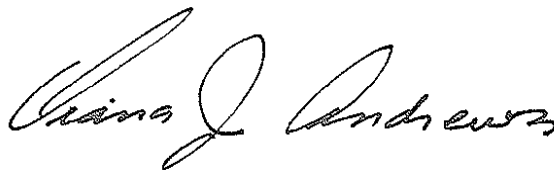
Source Location: Same as above

Permit: V-07-032
Agency Interest: 1440
Activity: APE20070001
Review Type: Title V, Operating
Source ID: 21-075-00001

Regional Office: Paducah Regional Office
130 Eagle Nest Drive
Paducah, KY 42003
(270) 898-8468

County: Fulton

Application
Complete Date: August 2, 2007
Issuance Date: February 19, 2008
Revision Date: N/A
Expiration Date: February 19, 2013



**John S. Lyons, Director
Division for Air Quality**

TABLE OF CONTENTS

SECTION	ISSUANCE	PAGE
A. PERMIT AUTHORIZATION		1
B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	Revision 2	2
C. INSIGNIFICANT ACTIVITIES	Revision 2	15
D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	Revision 2	17
E. SOURCE CONTROL EQUIPMENT REQUIREMENTS	Revision 2	18
F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS	Revision 2	19
G. GENERAL PROVISIONS	Revision 2	22
H. ALTERNATE OPERATING SCENARIOS	Revision 2	28
I. COMPLIANCE SCHEDULE	Revision 2	28
J. ACID RAIN	Revision 2	28

	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-01-023	Initial Issuance	53865	6/20/2001	January 30, 2003	Initial Operating Permit
V-01-023 R1	Revision 1	APE20050001	4/4/2005	June 6, 2005	Increase the hourly throughput of the hargraf cleaning machine (Emission Unit No. 6)
V-01-023 R2	Revision 2	APE20060002	1/31/2007	July 27, 2007	Increase the throughput of the hargraf cleaning machine (Emission Unit No. 6) and the ring bake furnace (Emission Unit No. 7)
V-07-032	Renewal	APE20070001	8/2/2007	February 19, 2008	Renewal Operating Permit

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 01 - Coke Unloading	
Process Unit	Fugitive Emissions: Railcar/Truck Hopper, Hopper Feeder, and Bucket Elevator
Description	Raw carbon material is brought into the facility mainly by railcar. This material is transported from railcar to a holding bin. The hopper is the initial conveying facility that operates in batch mode. The raw carbon is stored in silos until ready for use.
Installed	January 1, 1990
Maximum Rated Capacity	25 tons/hr or 219,000 tons/yr
Control Equipment	None

Unit 05 - Baking Conveyor System	
Process Units	Fugitive Emissions: a. Hopper, Conveyors (2), Elevator, Feeder b. Screen and Crusher c. Rotex Screener d. South and North Silos e. Bin f. Feeders (2) and Vacuum System
Description	Raw coke is transported from storage bins (silos) to the transporter hoppers. Conveying and transport systems are used as needed.
Installed	January 1, 1990
Maximum Rated Capacity	a. 20 tons/hr or 175,200 tons/yr b. 8 tons/hr or 70,080 tons/yr c. 16 tons/hr or 140,160 tons/yr d. 20 tons/hr or 175,200 tons/yr e. 10 tons/hr or 87,600 tons/yr f. 20 tons/hr or 175,200 tons/yr
Control Equipment	None

APPLICABLE REGULATIONS:

401 KAR 63:010, *Fugitive Emissions*, is applicable to each affected facility which emits or may emit fugitive emissions provided that the fugitive emissions from such facility are not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1. Operating Limitations:

- a. No person shall cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished, or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following: [401 KAR 63:010 Section 3(1)]
 - (1) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
 - (2) Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne.
- b. No person shall cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate. [401 KAR 63:010 Section 3(2)]

Compliance Demonstration Method:

Compliance will be demonstrated by the good operating procedures listed above and see Subsection 4, *Specific Monitoring Requirements*, and Subsection 5, *Specific Recordkeeping Requirements*.

2. Emission Limitations:

Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

Compliance Demonstration Method:

Compliance by good operating procedures, see Subsection 1, *Operating Limitations*.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

All operations contained in the described item or group shall be observed daily during daylight hours to determine whether conditions appear to be normal or abnormal. Normal or abnormal determinations for visible emissions monitored by visual inspection / determination daily shall be made. If the operations or emissions appear to be abnormal the permittee must

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

then comply with the deviation reporting described in the General Requirements, Section F, Monitoring, Recordkeeping, and Reporting Requirements of the permit.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the calculations to determine the fugitive emission from each emissions unit with all data used in the calculations. Emission calculations shall be based on the most current AP-42 emission factors for that year.
- b. The permittee shall keep a log of the reasonable precautions taken to prevent particulate matter from becoming airborne on a weekly basis.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8 and 9.

7. Specific Control Equipment Operating Conditions:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 02 - Particle Screening System	
Process Unit	Rotex Screen (small fraction): Conveyors, Screens, Bins, Feeders, Scales, Hoppers, and Elevator
Description	Raw coke is screened and filtered to various particle sizes. The smallest screen mesh size for smaller particle fractions results in high PM emissions. The larger mesh screens have insignificant emissions.
Installed	June 21, 1995
Maximum Rated Capacity	14 tons/hr or 122,640 tons/yr
Control Equipment	Dust Collector using polyester filter bags

Unit 04 - Mixing and Extrusion System	
Process Units	Eirich Mixer / Eisen Mann RTO
Description	Raw coke material is mixed with coal tar pitch, extrusion oil, stearic acid, and iron oxide, which is extruded through a die-mold.
Installed	June 21, 1995
Maximum Rated Capacity	25 tons/hr or 219,000 tons/yr
Control Equipment	Regenerative Thermal Oxidizer (RTO) and Scrubber
Fuel Input and Primary Fuel	1 mmBtu/hr and natural gas for Thermal Oxidizer

Unit 07 - Ring Bake Furnace	
Process Units	Electrode Bake / Natural Gas
Description	Molded graphite carbon anodes are lowered in to a ring bake furnace for firing. Operates in batch mode. Carbon chips are dumped into the furnace units for electrode support. When natural gas is fired, the electrodes are heated anywhere from 17 to 24 days. There are 22 furnace shells, so a single shell is emptied while another is filled on each day, approximately.
Installed	January 30, 1981
Modification	June 2001
Maximum Rated Capacity	3.995 tons/hr or 35,000 tons/yr
Control Equipment	Electrostatic Precipitators (ESP)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations*, is applicable to an emissions unit commenced on or after July 2, 1975.

1. Operating Limitations:

None

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, Section 3(2), particulate matter (PM) emissions into the open air shall not exceed
 - (1) 2.34 lbs/hour for process weight rate up to 1,000 lb/hr.
 - (2) $[3.59(P)^{0.62}]$ lbs/hour for process weight rates up to 60,000 lb/hr, where P is the processing rate in tons/hour.
 - (3) $[17.31(P)^{0.16}]$ lbs/hour for process weight rates in excess of 60,000 lb/hr, where P is the processing rate in tons/hour.
- b. Pursuant to 401 KAR 59:010, Section 3(1)(a), any continuous emissions into the open air shall not equal or exceed 20% opacity based on a six-minute average.

Compliance Demonstration Method:

- a. The following table of emissions factors shall be used to show compliance with the PM emission limit:

Emission Unit #	Emission Factor (lbs PM or PM₁₀ / ton)	Control Efficiency (%)
2	0.2550	99.5
4	1.4932	90 / 95
7	7.03	96.7

where, PM/PM₁₀ emissions in pound per hour = (monthly processing rate in tons / month) x (1 month / hours of operating that month) x (emission factor) x (1 – control efficiency)

Refer to Section F.7 for reporting of control equipment malfunctions. Refer to Subsection 4 of this section for proper monitoring of the controls.

- b. For compliance with visible emissions limit, see Subsection 3, *Testing Requirements* and Subsection 4, *Specific Monitoring Requirements*.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

- a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division. This includes any testing necessary for opacity observation determination.
- b. The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 if visible emissions from the stack are seen (not including condensed water vapor within the plume) during monitoring (Refer to Subsection 4.a, *Specific Monitoring Requirements*).

4. Specific Monitoring Requirements:

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for any necessary repairs.
- b. The permittee shall monitor the amount of material processed and hours of operation on a monthly basis for each emission unit.
- c. Parameters for the baghouse, wet scrubber, and thermal oxidizer must be controlled to maintain sufficient particulate removal to remain in compliance. The parameters to be monitored are:
 - (1) Pressure drop across the baghouse filters daily;
 - (2) Liquid input to the wet scrubber daily; and
 - (3) Oxidizer internal temperature daily.
- d. The permittee shall monitor and control the monthly green anode throughput for green anode baking. For the electrostatic precipitators the voltage across the ESP plates shall be measured hourly and the current for each transformer shall be set hourly.

5. Specific Recordkeeping Requirements:

The permittee shall retain records of the following:

- a. The tons of raw material throughput and hours of operation shall be maintained on a monthly basis from each emission unit.
- b. The weekly log of qualitative visual observation of opacity of emissions.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. The opacity determined by Reference Method 9, when taken, and documentation of any repairs that were made due to any opacity reading, which exceeded the standard.
- d. A log showing the date of all routine or other maintenance, malfunction or repair of the oxidizer, scrubber, baghouse, and ESP the nature of the action taken on such date and any corrective action or preventive measures taken.
- e. The combustion temperature of the process or waste stream.
- f. The chemical analysis of the tar pitch and coke used, which clearly indicates the sulfur content. This record shall be kept for up to 2 years.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8 and 9.

7. Specific Control Equipment Operating Conditions:

- a. The wet scrubber and thermal oxidizer shall be operated in the range of temperature and flowrates specified by the manufacture for proper operation of the device.
- b. At least one ESP shall be in operation when the furnace is in operation to remove particulate matter from the exhaust.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 03 - Storage Tanks	
Process Units	a. Coal Tar Pitch Tanks b. Extrusion Oil Tank
Description	Coal tar pitch is stored on site. The tar pitch tanks are heated, using electric heaters, near 380°F to avoid solidification. The pitch transfer from railcar tankers or truck tankers requires a preheating of the mobile tank and piping lines. The piping lines are jacketed and heated with thermion, whereas the railcars and truck tanks are electrically heated.
Installed	a. November 1998 b. 1966
Maximum Rated Capacity	a. 285.4 tons/hr or 2,500,000 tons/yr b. 10.7 tons/hr or 93,500 tons/yr
Control Equipment	a. Condenser b. None

APPLICABLE REGULATIONS:

401 KAR 60:005 (40 CFR 60 Subpart Kb), *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*, is only applicable to coal tar pitch tanks since which storage vessel has a capacity greater than 75 cubic meters (19,812.9 gallon) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, is applicable to an emissions unit which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

Refer to Section D.3 for 401 KAR 63:020 limits and compliance.

2. Emission Limitations:

The owner or operator of each storage vessel with a design capacity greater than or equal to 151 m³ containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa shall equip each storage vessel with a closed vent system and control device meeting the following specifications: [40 CFR 60.112b(a)(3)]

- a. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the coal tar pitch storage vessels and operated with no detectable emissions as

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, 40 CFR 60.485(b).

- b. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater.

Compliance Demonstration Method:

For compliance with 40 CFR 60.112b(a)(3), refer to Subsection 4, *Specific Monitoring Requirements*, Subsection 5, *Specific Recordkeeping Requirements*, and Subsection 6, *Specific Reporting Requirements*.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The owner or operator of each storage vessel that is equipped with a closed vent system and control device as required in 40 CFR 60.112b(a)(3) is exempt from 40 CFR 60.8, *Performance Tests*, of the General Provisions and shall meet the following requirements. [40 CFR 60.113b(c)]

- a. Submit for approval by the Administrator as an attachment to the notification required by 40 CFR 60.7(a)(1) or, if the facility is exempt from 40 CFR 60.7(a)(1), as an attachment to the notification required by 40 CFR 60.7(a)(2), as operating plan containing the information listed below.
 - (1) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.
 - (2) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with Subsection 4.a, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

5. Specific Recordkeeping Requirements:

- a. After installing control equipment in accordance with 40 CFR 60.112b(a)(3), the owner or operator shall keep the following records. [40 CFR 60.115b(c)]
 - (1) A copy of the operating plan. This record will be kept for the life of the control equipment.
 - (2) A record of the measured values of the parameters monitored in accordance with 40 CFR 60.113b(c)(2).
- b. The owner or operator of each coal tar pitch storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. The record shall be maintained for the life of the source. [40 CFR 60.116b(a) and (b)]
- c. The owner or operator of each coal tar pitch storage vessel shall maintain a record of the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Copies of these records shall be maintained for at least 5 years.

6. Specific Reporting Requirements:

See Section F, Monitoring, Recordkeeping, and Reporting Requirements.

7. Specific Control Equipment Operating Conditions:

The permittee shall operate and maintain the condensing unit in accordance with manufacturers specifications to collect VOCs and HAP emissions such that emissions do not exceed the standards described in the Subsection 2, *Emission Limitations*.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Unit 06 - Hargraf Cleaning Machine	
Process Unit	Hargraf Cleaning Machine
Description	Baked electrodes come out of the Ring Bake furnace and must be cleaned, before shipping, using the cleaning machine. Carbon chips that are loosely associated with the electrodes, are scraped off and recycled back through the vacuum system.
Installed	July 1, 1969
Maximum Rated Capacity	15 tons/hr or 32,500 tons/yr
Control Equipment	Baghouse using polyester filter bags

APPLICABLE REGULATIONS:

401 KAR 61:020, *Existing process operations*, is applicable to an emissions unit commenced before July 2, 1975.

1. Operating Limitations:

As requested by the facility the maximum rate shall be 15 tons per hour and 32,500 tons processed per year.

Compliance Demonstration Method:

Refer to Subsection 4, *Specific Monitoring Requirements*, and Subsection 5, *Specific Recordkeeping Requirements*.

2. Emission Limitations:

- a. Pursuant to 401 KAR 61:020, Section 3(2), particulate matter (PM) emissions into the open air shall not exceed
 - (1) 2.58 lbs/hour for process weight rate up to 1,000 lb/hr.
 - (4) $[4.10(P)^{0.67}]$ lbs/hour for process weight rates up to 60,000 lb/hr, where P is the processing rate in tons/hour.
 - (5) $[55.0(P)^{0.11} - 40]$ lbs/hour for process weight rates in excess of 60,000 lb/hr, where P is the processing rate in tons/hour.
- b. Pursuant to 401 KAR 61:020, Section 3(1)(a), any continuous emissions into the open air shall not equal or exceed 40% opacity based on a six-minute average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Compliance Demonstration Method:**

- a. The following table of emissions factors shall be used to show compliance with the PM emission limit:

Emission Unit #	Emission Factor (lbs PM or PM₁₀ / ton)	Control Efficiency (%)
6	50.1552	99.5

where, PM/PM₁₀ emissions in pound per hour = (monthly processing rate in tons / month) x (1 month / hours of operating that month) x (emission factor) x (1 – control efficiency)

Refer to Section F.7 for reporting of control equipment malfunctions. Refer to Subsection 4 of this section for proper monitoring of the controls.

- b. For compliance with visible emissions limit, see Subsection 3, *Testing Requirements* and Subsection 4, *Specific Monitoring Requirements*.

3. Testing Requirements:

- a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division. This includes any testing necessary for opacity observation determination.
- b. The permittee shall determine the opacity of emissions from the stack using U.S. EPA Reference Method 9 if visible emissions from the stack are seen (not including condensed water vapor within the plume) during monitoring (Refer to Subsection 4.a, *Specific Monitoring Requirements*).

4. Monitoring Requirements:

- a. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for any necessary repairs.
- b. The permittee shall monitor and maintain records of the monthly tons of anode processed and the total tons processed for the preceding eleven months, to document compliance with the 32,500 tons per year limit.
- c. The permittee shall monitor the amount of material processed and hours of operation on a monthly basis for this unit.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- d. Pressure drop across the baghouse filters must be controlled daily to maintain sufficient particulate removal to remain in compliance.

5. Recordkeeping Requirements:

The permittee shall retain records of the following:

- a. The tons of raw material throughput and hours of operation shall be maintained on a monthly basis from each emission unit.
- b. The weekly log of qualitative visual observation of opacity of emissions.
- c. The opacity determined by Reference Method 9, when taken, and documentation of any repairs that were made due to any opacity reading, which exceeded the standard.
- d. A log showing the date of all routine or other maintenance, malfunction or repair of the baghouse, the nature of the action taken on such date and any corrective action or preventive measures taken.

6. Reporting Requirements:

See Section F, Conditions 5, 6, 7, 8 and 9.

7. Specific Control Equipment Operating Conditions:

The permittee shall operate and maintain the baghouse according to manufacturers specifications.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Area	Description	Applicable Regulation
Coke Unloading	Coke Unloading inside Graphite Building	401 KAR 63:010
Coke Supply System	Silos (six)	401 KAR 59:010
	Screw Conveyor (Into Silos)	
	Feeders Under Silos (six)	
	Belt Under Feeders	
	Bucket Elevator	
	Screw Conveyors (two)	
	Screw Conveyor	
	Raw Material Bins (four)	
	Screw Conveyor	
	Bucket Elevator (Raw Material to Flour Mills)	
	Storage Bin	
Flour Milling System	Raymond Mill Surge Hopper	401 KAR 59:010
	Raymond Mill	
	Raymond Mill Cyclone	
	Screw Conveyor	
	Flour Bins (five)	
	Flour Scale	
	Coke Receiving Chute	
	Coke Pneumatic Conveyor	
Iron Oxide System	SuperSAC Station (Iron Oxide)	401 KAR 59:010
	Flexicon Screw Conveyor	
	Bucket Elevator	
	Scale	
	Screw Conveyor	

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

Green Scrap and Stearic Acid System	Screw Conveyor	401 KAR 59:010
	Screw Conveyor	
	Seperator	
	Bucket Elevator	
	Belt Conveyor	
	Green Scrap Crusher	
	Green Scrap Bins (four)	
	Green Scrap Feeders (two)	
	SuperSAC Station (Stearic Acid)	
	Green Scrap Pneumatic Conveyor	
	Stearic Acid Receiving Hopper	
	Green Scrap Receiving Hopper	
	Stearic Acid Scale	
	Green Scrap Scale	
Weighing System	Pitch Scale	401 KAR 59:010
	Oil Scale	
	Coke Receiving Hopper	
Boilers	Unit 08 - Natural Gas Boiler (6.1 mmBtu/hr)	401 KAR 61:015
	Unit 09 - Natural Gas Boiler (6.1 mmBtu/hr)	
	Unit 10 - ESP Steam Natural Gas Boiler (5.226 mmBtu/hr)	401 KAR 59:010
Heater	Unit 11 - Natural Gas Hot Water Heater (2.407 mmBtu/hr)	
	Natural Gas Extrusion Pond Heater (0.6 mmBtu/hr)	

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. PM/PM₁₀, VOC, HAP, and visible fugitive dust emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. Pursuant to 401 KAR 63:020, Section 3, persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants.

Compliance Demonstration Method:

For compliance with 401 KAR 63:020, refer to Section F.9.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2. Baghouses, wet scrubbers, thermal oxidizers, and electrostatic precipitators shall be maintained according to the manufacturer's specifications.
3. Particulate emissions from all affected facilities must be controlled to meet the allowable standard pursuant to 401 KAR 59:010, which is federally enforceable as a practical matter.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Paducah Regional Office
130 Eagle Nest Drive
Paducah, KY 42003

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS**1. General Compliance Requirements**

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020 Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-15-b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in the permit and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)**5. Testing Requirements**

- a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (2) The permitted facility was at the time being properly operated;
 - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - (5) This requirement does not relieve the source of other local, state or federal notification requirements.
- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
 - c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J - ACID RAIN

None